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20. ABSTRACT

This is the Soviet Laser Bibliography for January-February 1986, and is No. 81 in a continuing series on Soviet laser developments. The coverage includes basic research on solid state, liquid, gas, and chemical lasers; components; nonlinear optics; spectroscopy of laser materials; ultrashort pulse generation; theoretical aspects of advanced lasers; and general laser theory.
Laser applications are listed under biological effects; communications systems; beam propagation; adaptive optics; computer technology; holography; laser-induced chemical reactions; measurement of laser parameters; laser measurement applications; laser-excited optical effects; laser spectroscopy; beam-target interaction; and plasma generation and diagnostics.

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INTRODUCTION

This bibliography has been compiled under an interagency agreement as a continuing effort to document current Soviet-bloc developments in the quantum electronics field. The period covered is January-February 1986, and includes all significant laser-related articles received by us in that interval. The bulk of the entries come from the approximately 30 periodicals which are known to publish the most significant findings in Soviet laser technology. Citations from the Soviet Reference Journals are also included. Laser items from the popular or semipopular press are generally omitted. All sources cited with no parenthetical notation are available at the Library of Congress. A parenthetical entry indicates the secondary source in which the citation was found as a bibliographic entry or abstract, but for which the original source is not currently available at the Library.

Since our computer is not now able to print between lines, superscripts and subscripts are indicated by (sup) and (sub).

We are producing the entire bibliography on computer. To make our bibliography compatible with other data bases, for source abbreviations, we use the letter codens generally used in our own government rather than transliterations of abbreviations used in the Soviet Union. Likewise, we use letter codens to designate affiliations. The authors' affiliations are indicated in parentheses after the authors' names in the text. Empty parentheses indicate that the affiliation was not given. A source abbreviations list, authors' affiliations list, and author index are included in the back of the bibliography.

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f. ZnSe

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J. BEAM-TARGET INTERACTION

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IV. SOURCE ABBREVIATIONS

(Note: CTC = cover-to-cover translation available)

AKZHA	Akusticheskiy zhurnal (CTC)
AMESA	Archiwum mechaniki stosowanej
APHUE	Acta physica hungarica (Budapest)
ATCVA	Acta technica CSAV (Ceskoslovenska Akademie Ved) (Prague)
BIOFA	Biofizika (CTC)
CCCCA	Collection of Czechoslovak Chemical Communications (Prague)
CKCFA	Ceskoslovensky casopis pro fysiku
CMKETekh	Mezhdunarodnaya konferentsiya po elektronnoluchevoy tekhnologii
CMSIPSMe	Mezhdunarodnyy simpozium po izbrannym problemam statisticheskoy mekhaniki
CMSSYaFV	Mezhdunarodnyy seminar po spinovym yavleniyam v fizike vysokikh energiy
CVKAKhOS	Vsesoyuznaya konferentsiya po analiticheskoy khimii organicheskikh soyedineniy
CVKBKDKI	Vsesoyuznaya konferentsiya: Biosfera i klimat po dannym kosmicheskikh issledovaniy
CVKIPTRe	Vsesoyuznaya konferentsiya po inzhenernym problemam termoyadernykh reaktorov
CVKVEIPl	Vsesoyuznaya konferentsiya: Vzaimodeystviye elektromagnitnykh izlucheniy s plazmoy
CVSFVZCh	Vsesoyuznoye soveshchaniye po fizike vzaimodeystviya zaryazhennykh chastits s kristallam
CVSOAnSr	Vsesoyuznyy seminar: Optika anizotropnykh sred
CVSRLIDS	Vsesoyuznoye soveshchaniye po rasprostraneniyu lazernogo izlucheniya v dispersnoy srede

CZYPA	Czechoslovak Journal of Physics
DANKA	Akademiya nauk SSSR. Doklady (CTC)
DANUA	Akademiya nauk Uzbekskoy SSR. Doklady
DBLRA	Akademiya nauk BSSR. Doklady
EKVZA	Elektrosvyaz' (CTC)
EOBMA	Elektronnaya obrabotka materialov (CTC)
ETFMB	Akademiya nauk Estonskoy SSR. Izvestiya. Fizika, matematika
EXPPA	Eksperimentelle Technik der Physik
FGRTA	Feingeraetetechnik
FGVZA	Fizika goreniya i vzryva (CTC)
FIPLD	Fizika plazmy (Moskva, AN SSSR) (CTC)
FKSTD	Fizika i khimiya stekla (CTC)
FNTED	Fizika nizkikh temperatur (Kiyev) (CTC)
FOOSD	Fundamental'nyye osnovy opticheskoy pamyati i sredy
FTPPA	Fizika i tekhnika poluprovodnikov (CTC)
FTVTA	Fizika tverdogo tela (CTC)
GISAA	Gigiyena i sanitariya
IAAFA	Akademiya nauk Armyanskoy SSR. Izvestiya. Fizika
IAFMA	Akademiya nauk Azerbaydzhanskoy SSR. Izvestiya. Seriya fiziko-tekhnicheskikh i matematicheskikh nauk
IANFA	Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya (CTC)
IASKA	Akademiya nauk SSSR. Izvestiya. Seriya khimicheskaya (CTC)
IFAOA	Akademiya nauk SSSR. Izvestiya. Fizika atmosfery i okeana (CTC)

INFZA	Inzhenerno-fizicheskiy zhurnal (CTC)
IVUBA	Izvestiya vysshikh uchebnykh zavedeniy. Priborostroyeniye (CTC)
IVUFA	Izvestiya vysshikh uchebnykh zavedeniy. Fizika (CTC)
IVUTA	Izvestiya vysshikh uchebnykh zavedeniy. Tsvetnaya metallurgiya
IVUZB	Izvestiya vysshikh uchebnykh zavedeniy. Radioelektronika
IVYRA	Izvestiya vysshikh uchebnykh zavedeniy. Radiofizika (CTC)
IZKOD	Issledovaniye Zemli iz kosmosa (Moskva)
IZMTB	Akademiya nauk SSSR. Izvestiya. Mekhanika tverdogo tela (CTC)
IZTEA	Izmeritel'naya tekhnika (CTC)
JMKOA	Jemna mechanika a optika
JTPHD	Journal of Technical Physics (Poland)
KARDA	Kardiologiya
KHFID	Khimicheskaya fizika (CTC)
KHVKA	Khimiya vysokikh energiy (CTC)
KNKTA	Kinetika i kataliz (CTC)
KRISA	Kristallografiya (CTC)
KRSFA	Kratkiye soobshcheniya po fizike (CTC)
KVEKA	Kvantovaya elektronika (journal, Moskva) (CTC)
LZFTA	Akademiya nauk Latviyskoy SSR. Izvestiya. Seriya fizicheskikh i tekhnicheskikh nauk
MKETA	Mikroelektronika (journal, Moskva) (CTC)
MTOMA	Metallovedeniye i termicheskaya obrabotka metallov (CTC)
MTRLB	Metrologiya

NACHA	Nachrichtentechnik-Elektronik (GDR)
OPMPA	Optiko-mekhanicheskaya promyshlennost' (CTC)
OPSPA	Optika i spektroskopiya (CTC)
OTIZD	Otkrytiya, izobreteniya
PAKOD	Priborostroyeniye i avtomaticheskiy kontrol' (sbornik, Moskva)
PFKMD	Poverkhnost'. Fizika, khimiya, mekhanika (Moskva)
PRGEA	Przeglad geofizyczny
PRSUB	Pribory i sistemy upravleniya (CTC)
PRTEA	Pribory i tekhnika eksperimenta (CTC)
PSSAB	Physica status solidi (A). Applied Research (GDR)
PSTFA	Postepy fizyki
PZTFD	Zhurnal tekhnicheskoy fiziki. Pis'ma (CTC)
RAELA	Radiotekhnika i elektronika (journal, Moskva)(CTC)
RATEA	Radiotekhnika (journal, Moskva) (CTC)
RRPQA	Revue Roumaine de Physique
RTKHA	Radiotekhnika (sbornik, Khar'kov)
RZFZA	Referativnyy zhurnal. Fizika
RZGFA	Referativnyy zhurnal. Geofizika
RZRAB	Referativnyy zhurnal. Radiotekhnika
RZVTA	Referativnyy zhurnal. Vodnyy transport
SAKNA	Akademiya nauk Gruzinskoy SSR. Soobshcheniya
SCEFA	Studii si cercetari de fizica
SDTEA	Sdelovaci technica
SLOZA	Slaboproudy obzor

TKHNA	Tekhnika i nauka (Moskva)
TKTEA	Tekhnika kino i televideniya
TMFZA	Teoreticheskaya i matematicheskaya fizika (CTC)
TVYTA	Teplofizika vysokikh temperatur (CTC)
UFIZA	Ukrainskiy fizicheskiy zhurnal (Russian language version) (CTC) (UFZHA refers to Ukrainian language version)
UFNAA	Uspekhi fizicheskikh nauk (CTC)
USKHA	Uspekhi khimii (CTC)
UTGUA	Uchenyye zapiski Tartuskogo universiteta
VANSA	Akademiya nauk SSSR. Vestnik (CTC)
VBMFA	Belorusskiy universitet. Vestnik. Seriya 1. Matematika, fizika, mekhanika
VBSFA	Akademiya nauk Belorusskoy SSR. Izvestiya. Seriya fiziko-matematicheskikh nauk
VEOFA	Vestnik oftal'mologii
VKSGA	Khar'kovskiy universitet. Vestnik
VLUAA	Leningradskiy universitet. Vestnik. Seriya 1. Matematika, mekhanika, astronomiya
VMASA	Vestnik mashinostroyeniya
VMUFA	Moskovskiy universitet. Vestnik. fizika, astronomiya (CTC)
VORLA	Vestnik otorinolaringologii
WDTEA	Wiadomosci telekomunikacyjne
ZAKHA	Zhurnal analiticheskoy khimii (CTC)
ZETFA	Zhurnal eksperimental'noy i teoreticheskoy fiziki (CTC)
ZFKHA	Zhurnal fizicheskoy khimii (CTC)

ZFPRA	Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma (CTC)
ZNOKA	Zhurnal neorganicheskoy khimii (CTC)
ZNPFA	Zhurnal nauchnoy i prikladnoy fotografii i kinematografii (CTC)
ZPMFA	Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki (CTC)
ZPSBA	Zhurnal prikladnoy spektroskopii (CTC)
ZRBEA	Zarubezhnaya radioelektronika
ZTEFA	Zhurnal tekhnicheskoy fiziki (CTC)

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GGO
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GKGKP
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USSR State Committee on Hydrometeorology and Monitoring of the Environment

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IEANUz
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Institut elektrokhimii AN SSSR
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IEM
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IRE
  Institut radiotekhniki i elektroniki AN SSSR
  Institute of Radioengineering and Electronics, Academy of Sciences USSR, Moscow
IRFEANUk
  Institut radiofiziki i elektroniki AN UkrSSR
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IrPI
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  Irkutsk Polytechnic Institute
ISAN
  Institut spektroskopii AN SSSR
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ISE
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ISSKh
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ITeFUk
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ITF
  Institut teplofiziki SOAN
  Institute of Thermophysics, Siberian Branch Academy of Sciences USSR, Novosibirsk
ITFL
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  Institute of Theoretical Physics imeni Landau, Academy of Sciences USSR, Chernogolovka
ITM
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  Kiev State University
KhAI
  Khar'kovskiy aviatsionnyy institut
  Khar'kov Aviation Institute
KhGU
  Khar'kovskiy gos universitet
  Khar'kov State University
KiGU
  Kishinveskiy gos universitet
  Kishinev State University
KirGU
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KomGMI
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  Kommunarsk Mining and Metallurgy Institute
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MISIS
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Moscow Institute of Steel and Alloys

MITKhT
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Moscow Institute of Fine Chemical Technology imeni Lomonosov

MMSI
Moskovskiy meditsinskiy stomatologicheskiy institut
Moscow Medical Institute of Stomatology

MNII
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Moscow Scientific Research Institute of Eye Diseases imeni Gel'mgol'ts

MNIIMG
Moskovskiy NII mikrokhirurgii glaza MZ RSFSR
Moscow Scientific Research Institute of Microsurgery of the Eye, Ministry of Health, Russian SFSR

MONIKI
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Moscow Regional Scientific Clinical Research Institute imeni M.F. Vladimirskiy

MVTU
Moskovskoye vyssheye tekhnicheskoye uchilishche im Baumana
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NGU
Novosibirskiy gos universitet
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NIISI
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NIIVN
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OIYaI
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Saratov Polytechnic Institute

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Semipalatinsk State Medical Institute

SGU
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